PRICE AND GESS

ATTORNEYS AT LAW

2100 S.E. MAIN STREET, SUITE 250

IRVINE, CALIFORNIA 92614-6238

A PROFESSIONAL CORPORATION TELEPHONE: (949) 261-8433 FACSIMILE: (949) 261-9072 FACSIMILE: (949) 261-1726

e-mail: pg@pgpatentlaw.com

OF COUNSEL JAMES F. KIRK

MICHAEL J. MOFFATT

GORDON E. GRAY III BRADLEY D. BLANCHE

J. RONALD RICHEBOURG

JOSEPH W. PRICE

ALBIN H. GESS

DRAWINGS (11 SHEETS)

Inventor(s):

Kazuhiro Yamada et al.

Title:

GRAY-SCALE IMAGE DISPLAY DEVICE THAT CAN REDUCE POWER

CONSUMPTION WHEN WRITING DATA

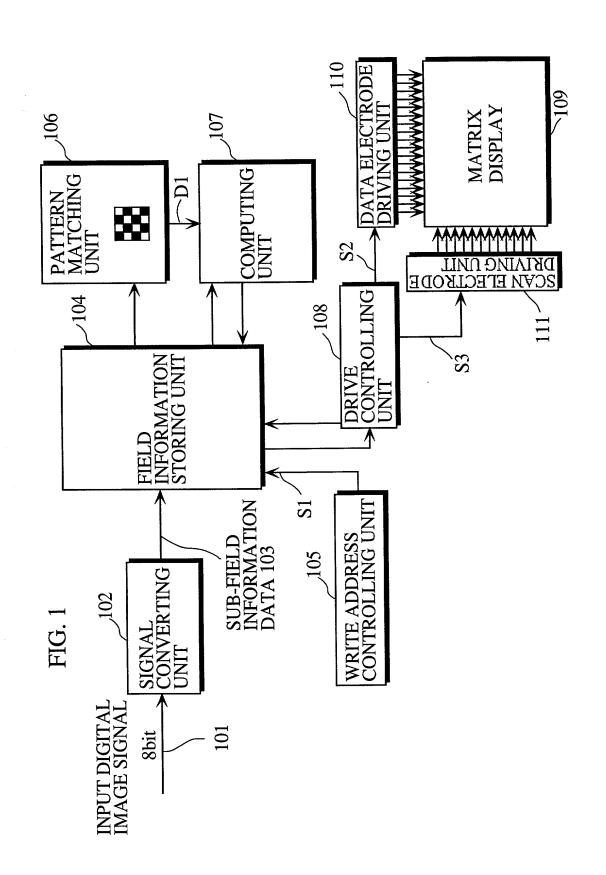
Attorney's

Docket No.:

NAK1-BO60

EXPRESS MAIL LABEL NO. <u>EL 852659002 US</u>

DATE OF DEPOSIT: April 23, 2001



JB-FIELD

	i – i	₋	 	_Ī	-	 	<u>-</u> 	 		_ī	<u>-</u>	
SF9 (0.5)	0	0	0	0	0	o i	•	0	•	0	o i	0
SF8 (1)	0	1	0	1	0		•	1	•	1	0	
SF7 (2)	0	0	1	1	0	0	•	0	•	0	1	
SF6 (4)	0 .	0	0	0	1	1	•	0	•	1	₩-	1
SF5 (8)	0	0	0	0	0	0	•	0	•		Ţ	1
SF4 (16)	0	0	0	0	0	0	•	0	•	-	П	1
SF3 (32)	0	0	0	0	0	0	•	0	•		1	1
SF2 (64)	0	0	0	0	0	0	•	1	•	-		1
SF1 (128)	0	0	0	0	0	0		0				1
	0		2	3	4	5	•	92	•	253	254	255

8-BIL INDUT DIGITAL IMAGE SIGNAL

0 · · · · OFF 1 · · · · ON

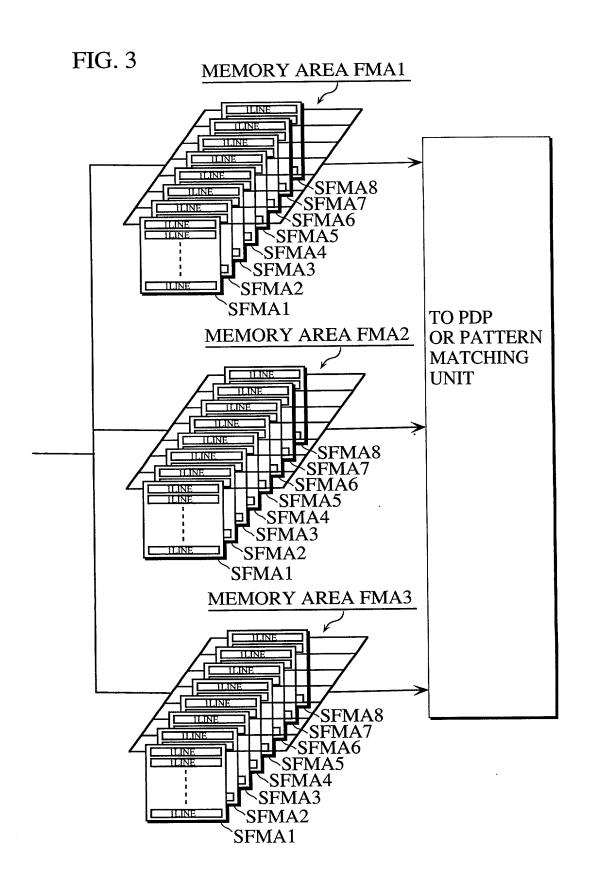
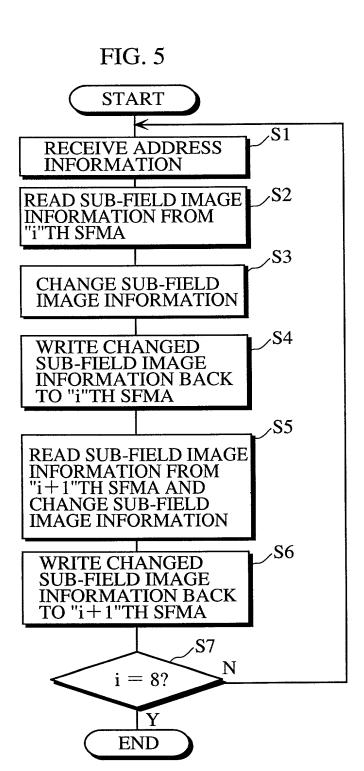


FIG. 4A

FIG. 4B

1	0	1	0	1	0
0	1	0	1	0	T
I	0	T	0	1	0
0	Н	0	Н	0	T
П.	0	П	0	Н	0
0	Н	0	Ţ	0	П

1	0	1	0	1	0
H	0	T	0	1	0
1	0	T	0	T	0
		T			
H	0	T	0	1	0
T	0	\vdash	0	1	0



												9
	r-1	*	*	*	*	*	*	*	*	*	*	
۲)	CHANGED SUB-FIELD IMAGE	*	*	*	*	*	*	*	*	*	*	GHI
		*	*	*	*	*	*	*	*	*	*	WEI
		*	*	*	1	1	1	1	*	*	*	NCE
FIG. 6C	CHANGED SUB-FIELI	*	*	*	1	1	1	1	*	*	*	INA
Ö.		*	*	*	1	-	Ţ	1	*	*	*	MI)
王	IA]	*	*	*		,—	П	_	*	*	*	
	SI	*	*	*	*	*	*	*	*	*	*	28
	4	*	*	*	*	*	*	*	*	*	*	* * * * * * * * * *
	SF4	*	*	*	*	*	*	*	*	*	*	*
	_ ~	*	*	*	*	*	*	*	*	*	*	32"
	CHANGED SUB-FIELD IMAGE	*	*	*	*	*	*	*	*	*	*	إ
		*	*	*	*	*	*	*	*	*	*	EH
B		*	*	*	0	0	0	0	*	*	*	MEI
FIG. 6B		*	*	*	0	0	0	0	*	*	*	LUMINANCE WEIGHT="32"
Ŋ		*	*	*	0	0	0	0	*	*	*	
江		*	*	*	0	0	0	0	*	*	*	N N
		*	*	*	*	*	*	*	*	*	*	
	~	*	*	*	*	*	*	*	*	*	*	
	SF3	*	*	*	*	*	*	*	*	*	*	
		CHANGE										_
		*	*	*	*	*	*	*	*	*	*	
	闬	*	*	*	*	*	*	*	*	*	*	İ
FIG. 6A	AG	*	*	*	*	*	*	*	*	*	*	İ
	\mathbb{Z}	*	*	*	0	1	0	1	*	*	*	
	Q	*	*	*		0	-	0	*	*	*	l
	IEI	*	*	*	0	-	0	-	*	*	*	
	3- F	*	*	*	1	0	-	0	*	*	*	
	UE	*	*	*	*	*	*	*	*	*	*	OR.
	SF3 SUB-FIELD IMAGE	*	*	*	*	*	*	*	*	*	*	*=0 OR
	SF	*	*	*	*	*	*	*	*	*	*	*

`	\ _										_/
	14	*	*	*	*	*	*	*	*	*	
	*	* X	*	*	*	*	*	*	*/	*	ED
	*	*	×	*	*	*	*	*/	*	*	CHANGE IS PROHIBITED
B	-*	*	*	8	0	0	Ø	*	*	*	H
FIG. 7B	-*	*	*	0	8	ø	0	*	*	*	PR(
J.	-*	*	*	0	Ø	B	0	*	*	*	IS
}_	- X	· *	*	Ø	0	0	B	*	*	*	GE
	- X	*	×	*	*	*	*	*	*	*	AN
	- X	*	*	*	*	*	*	*	*	*	CH
	*	*	*	*	*	*	*	*	*	×	
			,		<u>.</u>	<u> </u>	CHANGE				
	_		,			_	<u>5</u>	,			•
	 *	* *	*	*	*	*	*	*	*	*	
	 *	*	*	*	*	*	*	*	*	*	
	 *	* *	*	*	*	*	*	*	*	*	
FIG. 7A	*	* *	*	1	0	-	0	*	*	*	
	*	*	*	<u> </u>	0	-	0	*	*	*	
	*	* *	*	-	0	-	0	*	*	*	
Щ	-*	*	*	<u> </u>	0	—	0	*	*	*	l —
	-*	* *	*	*	*	*	*	*	*	*	OR
	-*	* *	*	*	*	*	*	*	*	*	* = 0 OR
	->	* *	*	*	*	*	*	*	*	*	*

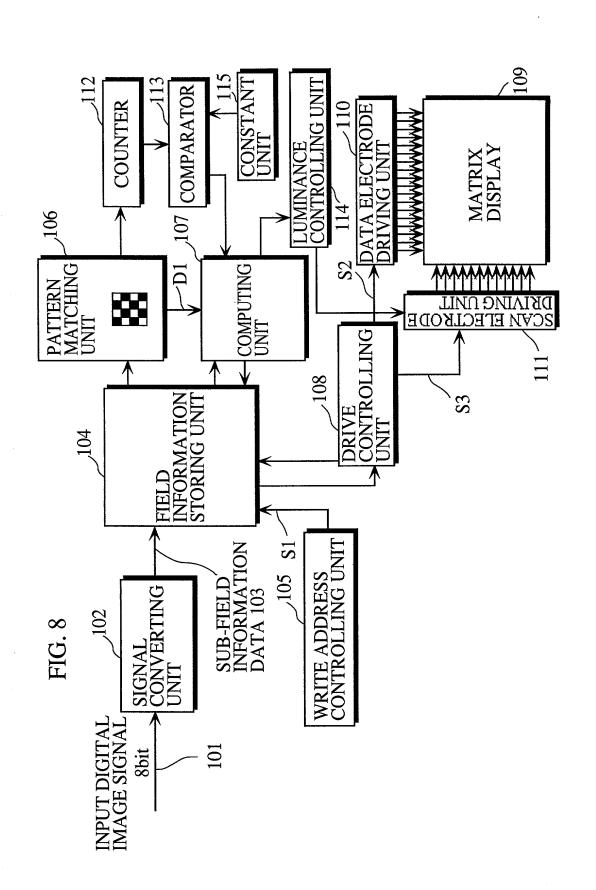
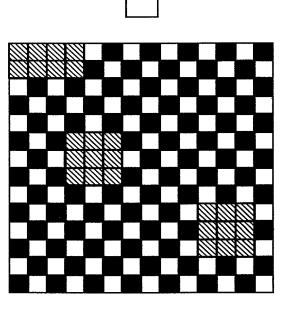


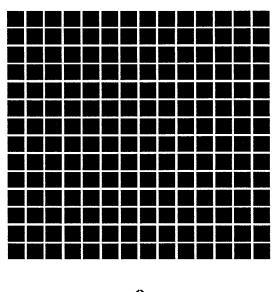
FIG. 9A

FIG. 9B

PATTERN IN SF3 WITH LUMINANCE WEIGHT OF "32" (MORE THAN HALF OF IMAGE IS CHECKERED)



DISPLAY SOLID IMAGE WITH LUMINANCE WEIGHT OF SF3 BEING DECREASED TO "16"



AFTER CHANGE

NO:

BEFORE CHANGE

NO : ■

□:0FF

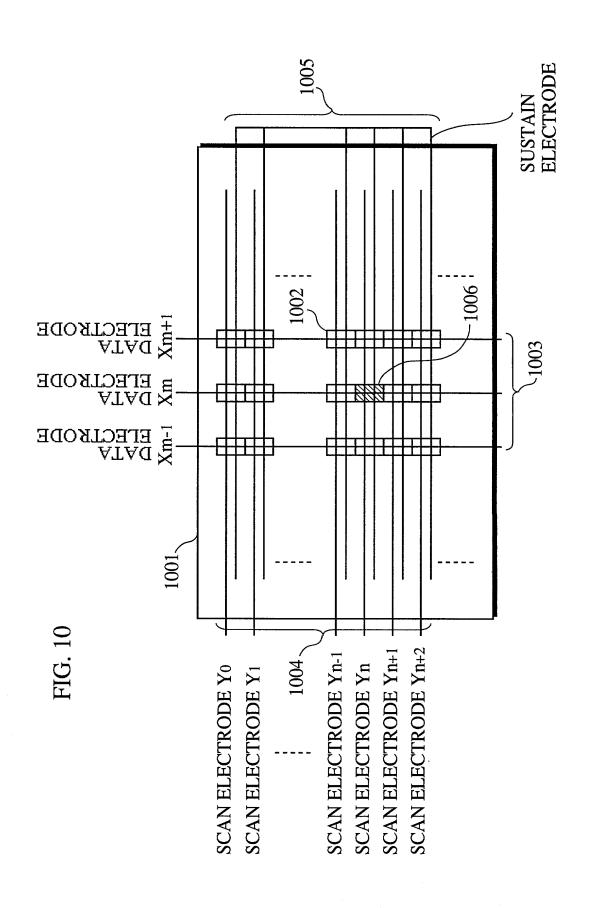
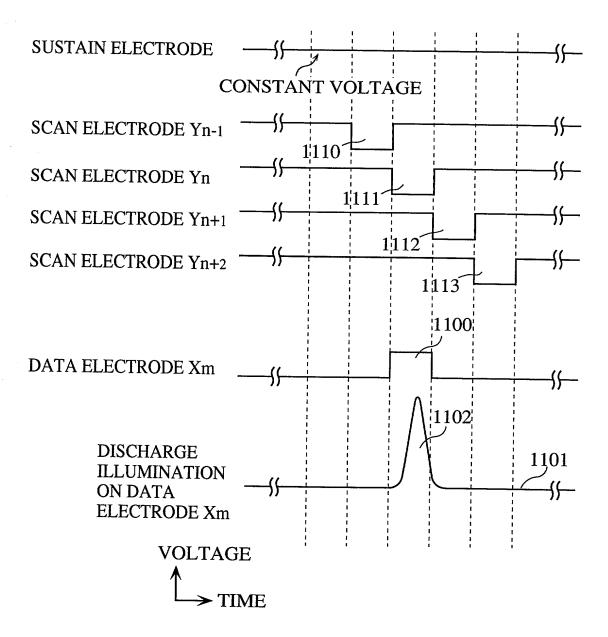


FIG. 11



- 1100 DATA PULSE
- 1101 ILLUMINATION WAVEFORM ON DATA ELECTRODE Xm
- 1102 DISCHARGE ILLUMINATION WAVEFORM IN CELLS WHERE INFORMATION SHOULD BE WRITTEN
- 1110~1113 SCAN PULSE